REMARKS

Claims 22-54 are pending in the present application. In the Office Action mailed June 26, 2006, the Examiner provisionally rejected claims 22-39 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-23 of copending Application No. 10/605,546 (Stein et al. US Pub. 2005/0016979). The Examiner next provisionally rejected claims 22-39 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 24-43 of copending Application No. 10/604,549 (Stein et al. US Pub. 2005/0016978). Claims 22-39 were rejected under 35 U.S.C. §112, second paragraph, and under 35 U.S.C. §103(a) as being unpatentable over "either" Prunier (FR 2 536 320) or Behnke et al. (USP 2,510,207) in view of Bailey (USP 5,266,778).

The Examiner withdrew claims 40-54 from further consideration. Applicant seeks reconsideration and is filing concurrently herewith a Petition for Supervisory Review of the Restriction Requirement.

Claim 22 was objected to because of informalities and has thus been amended herein.

Double Patenting Rejections & Request to Reconsider Restriction Requirement

The Examiner provisionally rejected claims 22-39 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-23 of copending Application No. 10/605,546 and also over claims 24-43 of copending Application No. 10/604,549. Applicant respectfully disagrees with the Examiner's rejection. In the Restriction Requirement dated March 17, 2006, the Examiner stated that claims drawn to cooling systems and claims drawn to welding systems are "patentably distinct species." The Examiner now, however, asserts that claims 1-23 of copending Application No. 10/605,546 and claims 24-43 of copending Application No. 10/604,549, which are all drawn to welding apparatus and welding-type systems, are grounds for a nonstatutory obviousness-type double patenting rejection over claims 22-39 of the current application, which call for, what was previously described as, the "patentably distinct species" of a cooling system. Thus, the Examiner's reasoning for the double patenting rejection is directly opposite that of the previously imposed Restriction Requirement. Applicant seeks clarification. If welding-type systems and cooling systems are patentably distinct species, then the Examiner cannot also assert a double patenting rejection between the

two. If welding-type systems and cooling systems are not patentably distinct species, than the Examiner's prior Restriction Requirement should be withdrawn.

The Examiner's rejection of claims 22-39 on the ground of nonstatutory obviousness-type double patenting is also improper on several additional counts. MPEP §804 states that "any obviousness-type double patenting rejection should make clear: (A) the differences between the inventions defined by the conflicting claims - a claim in the patent compared to a claim in the application; and (B) the reasons why a person of ordinary skill in the art would conclude that the invention defined in the claim at issue would have been an obvious variation of the invention defined in a claim in the patent." Here, the Examiner failed to compare claims in the current application to the claims of the co-pending applications, other than to broadly state that claims 22-39 of the current application are unpatentable over the entirety of the claims of the two co-pending applications. Additionally, the Examiner failed to provide a basis for why a person of ordinary skill in the art would conclude that the invention defined in the current claims would have been an obvious variation of the invention defined in any claim in the patent.

The Examiner has merely stated that it would have been obvious that "the additional features present for the welding-type system of [the] copending [applications] would selectively be present on the welder of the present application, as open-ended 'comprising' language is present in the current application." *Office Action, June 26, 2006, p. 4-5.* First, Applicant is unaware of any precedent allowing for such an arbitrary application of the "open-ended 'comprising' language" for a double-patenting rejection. Authoritative citation is requested. Second, the claims in the current invention clearly call for elements not disclosed in the prior co-pending applications. For example, claims 22 and 30 both call for, in part, a cooling system having a sensing device positioned in relative proximity to a coolant supply outlet and configured to provide a component connection status output indicative of connection status of a welding-type component to the coolant supply outlet. No such feature is taught, disclosed, or suggested in either of the co-pending applications cited by the Examiner. It is improper for the Examiner to assert that this element would have been obvious to one skilled in the art based on the disclosure of the co-pending applications. Thus, for all these reasons, Applicant requests that the nonstatutory obviousness-type double patenting rejection be withdrawn, as it is clearly improper.

112 Rejection

The Examiner rejected claims 22-39 under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In making the rejection, the Examiner cited MPEP § 2173.05(d), and stated that "the phrase 'or the like' (in this instance, the term 'type') renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by 'or the like', or 'type', thereby rendering the scope of the claim(s) unascertainable." *June 26, 2006, Office Action, p. 6 (emphasis in original).* Applicant respectfully disagrees with the Examiner's conclusion that the aforementioned claims are indefinite because of the inclusion of the term "welding-type."

Firstly, it is noted that welding-type is not the same as "or the like" in that welding-type does not present an alternative as in using the word "or." For this reason alone, the claims are not indefinite.

Secondly, as stated in MPEP 2173.02, "[o]ffice policy is not to employ *per se* rules to make technical rejections" and "[e]xamples of claim language which have been held to be indefinite set forth in MPEP § 2173.05(d) are fact specific and should not be applied as *per se* rules." MPEP 2173.02 goes on to state that "[t]he test for definiteness under 35 U.S.C. 112, second paragraph, is whether 'those skilled in the art would understand what is claimed when the claim is read in light of the specification.'" See also *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576, 1 USPQ2d 1081, 1088 (Fed. Cir. 1986). Applying this test to the current claims, it is clear that the term "welding-type" is in fact definite. That is, one skilled in the art would understand what is claimed in claims 22-39 when the claims are read in light of the specification. Evidence to support this conclusion is set forth in the specification. ¶ 35 describes a "welding-type system" as "any system that requires such enclosures and/or high power outputs, such as heating and cutting systems." *Specification, ¶ 35.*

In light of the foregoing, Applicant respectfully believes that claims 1-10, 20-27, 29 and 30 are indeed definite, and as such, meet the formal requirements of 35 U.S.C. §112.

103(a) Rejection

The Examiner also rejected claims 22-39 under 35 U.S.C. §103(a) as being unpatentable over "either" Prunier (FR 2 536 320) or Behnke et al. (USP 2,510,207) in view of Bailey (USP 5,266,778). In making the rejection, the Examiner stated:

> It would have been obvious to one of ordinary skill in the art at the time the applicants' invention was made to modify either of the arc welding machines disclosed individually by Prunier and Behnke et al., by using a temperature sensor in cooperation with a control means to maintain coolant circulation while establishing a desired temperature set point, as taught by Bailey, in order to provide accurate, dynamic control of fluid temperature until expiration of a specific time period and/or until a temperature falls below a predetermined certain value, or set point (Bailey; abstract; column 1, lines 9-11; column 2, lines 15-68; and column 3, lines 1-14).

Office Action, supra at 9.

Initially, Applicant notes the impropriety of applying references in the alternative. *MPEP § 706.02* (stating that cumulative rejections should be strictly avoided). The Examiner must apply the best reference, and avoid duplicative rejections wherever possible. *Id.*

In substance, Applicant believes that a *prima facie* case of obviousness has not been established and one cannot be made based on the art of record. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. MPEP §2143. Second, there must be a reasonable expectation of success and both the reasonable expectation of success and the teaching or suggestion to make the claimed combination must be found in the prior art, not in applicant's disclosure. Id., citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP §2143. The Examiner has not established the three basic criteria required under MPEP §2143.

1. Lack of Motivation to Combine References

Appellant respectfully disagrees with the Examiner's conclusion that it would have been obvious to one skilled in the art to combine the teachings of Bailey with the teachings of either Prunier or Behnke et al. to achieve the current invention. MPEP §2143.01 states that "[o]bviousness can only be established by combining or modifying

the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so." Contrary to the Examiner's assertion, it would not have been obvious to modify Prunier or Behnke et al. by including the temperature control and temperature sensor of Bailey because there is no motivation to do so. Prunier and Behnke et al. are directed to a coolant system for use in a welding torch/machine. The temperature control and temperature sensor disclosed in Bailey is directed to a thermal blanket or heating pad. There is no evidence to support that one skilled in the art of welding would look to the field of heating pads to make modifications to a welding machine design. The Examiner is using improper hindsight reasoning to combine the invention of Bailey with Prunier and Behnke et al. using the current invention as a roadmap. The unrelated subject matter of the references is evidence that there is no reasonable motivation to combine the references in the manner done so by the Examiner.

2. Lack of Reasonable Expectation of Success

Even assuming *arguendo* that there is some motivation to combine the teachings of either Prunier or Behnke et al. with Bailey, Appellant believes that a *prima facie* case of obviousness has not been established and one cannot be made based on the art of record. The combination of the temperature control and temperature sensor of Bailey with the welding torch coolant system of Prunier or Behnke et al. would not result in a coolant system as called for in the current invention, and there would not be any reasonable expectation of success for achieving such an invention. That is, were Bailey combined with either Prunier or Behnke, the resulting system would be a welding torch coolant system that includes a temperature control and temperature sensor that controls the temperature of the coolant in the system by utilizing thermoelectric heat exchangers or thermal modules which are controlled by discrete voltage levels to actively heat or cool fluid. *See Behnke, Col. 4, ln. 67 to Col. 5, ln. 2.* This is not what is what is called for in the current invention. As will be discussed in greater detail below, the current invention controls circulation of the coolant, it does not control temperature of the coolant by way of thermoelectric heat exchangers or thermal modules.

3. Failure to Disclose Each and Every Element of the Claims

In addition to a lack of a motivation to combine the references that is necessary for a *prima facie* case of obviousness, the references must all teach, disclose, or suggest all of the elements of the claims. The teachings of Bailey combined with the teachings of

Prunier or Behnke et al., do not set forth each and every element called for in the current claims.

Claim 22 calls for, in part, a cooling system having a controller adapted to maintain coolant circulation if a temperature of the coolant exceeds a set point temperature. Similarly, claim 30 calls for, in part, a cooling system having a controller adapted to electronically communicate with a sensing device and to automatically affect circulation of coolant from a coolant source through a coolant supply outlet and a coolant conduit to a welding-type component when the welding-type component is activated.

Regarding claim 22, Bailey fails to teach or disclose a controller adapted to maintain coolant circulation if a temperature of the coolant exceeds a set point temperature, as asserted by the Examiner. The controller 50 called for in claim 22 is connected to a temperature sensor 54 designed to provide feedback as to the temperature of the torch and/or the coolant within the torch as well as a pressure sensor or flow meter 56 to provide feedback regarding coolant pressure and flow in the system. The temperature sensor 54 provides temperature feedback to the controller such that circulation is maintained both during a welding process and after a welding process is complete if the temperature exceeds a specified set point. *Application, p. 7, lns. 30-31 and p. 8, lns.* 1-5. This is not what is taught or disclosed in Bailey. Rather, Bailey discloses a dynamic temperature control 10, which includes fluid temperature sensor 30 and/or remote temperature sensor 32. The dynamic temperature control is a means of using a multiple discrete level power supply to optimally control the thermal load with a thermoelectric heat exchanger. *Col. 4, lns. 67-68 and col. 5, lns. 1-4.* The dynamic temperature control 10 is capable of delivering various discrete voltages. Thus, the "controller" identified by the Examiner in Bailey does not control coolant circulation, it only controls the amount of voltage used to heat the circulating fluid. This is not what is called for in claim 22. Claim 22 calls for a controller configured to maintain the actual circulation of the coolant, the controller does not control voltage signals used to vary the coolant temperature. The Examiner states as much when he recognizes Bailey as disclosing a "dynamic temperature control… to control the operating temperature of the fluid…." *Office Action, supra at 9.* The dynamic control system disclosed in Bailey fails to teach, disclose, or suggest the controller called for in claim 22 and cannot be said to render obvious that which is called for therein. Thus, claim 22 and the claims dependent therefrom are patentably distinct over the cited references.

Similarly, Bailey cannot be said to teach or disclose the controller called for in claim 30, which is configured to electronically communicate with the sensing device and to automatically affect circulation of coolant from the coolant source through the coolant supply outlet and the coolant conduit to the welding-type component when the welding-type component is activated. As stated above, the dynamic control system 10 of Bailey does not affect or control circulation of the coolant. Rather, it merely controls a voltage amount used to control temperature of the circulated coolant. Thus, claim 30 and the claims dependent therefrom are also patentably distinct over the combination of references set forth by the Examiner.

Claim 22 and claim 30 also call for, in part, a sensing device positioned in relative proximity to a coolant supply outlet and configured to provide a component connection status output indicative of connection status of a welding-type component to the coolant supply outlet. As detailed in the current Application, cooling system 46 includes a sensory or pick-up device 63 that provides feedback to controller 50 regarding a connection status of torch 32 to receive coolant. *See Application, p. 8, lns. 23-24; see also Fig. 2.* That is, the sensing device 63 sends a signal to controller 50 that allows it to determine that a coolant hose 44 is connected to the coolant outlet of torch 32. *See id., lns. 30-31; see also Figs. 1 & 2.*

The Examiner asserts that this sensing device is taught and disclosed in both Prunier and Behnke et al. Again, however, the Examiner his mischaracterized what is set forth in the cited references. Prunier fails to teach or disclose any mechanism or control for controlling coolant flow in the system. Behnke et al. discloses a system in which a control box B contains a series of relays 10, 12, 17, a timer 14, and switches 18, 20 that control the flow of argon gas and coolant in the welding torch. The relays respond to increases/decreases in arc voltage to determine when the timer and switches should be activated in order to control flow of the gas and coolant. *See Col. 1, lns. 52-55 and Col. 2, lns. 1-17.*

Neither reference however teaches or discloses a sensing device that is configured to provide a component connection status output indicative of connection status of a welding-type component to the coolant supply outlet. That is, Prunier and Behnke et al. both fail to teach or disclose a mechanism that is configured to determine if the hose or conduit connecting the coolant supply to the welding torch is actually connected to the torch. Neither reference provides any suggestion of such a feature being

included therein. Thus, the combination of Prunier or Behnke et al. with the system of Bailey fails to teach, disclose, or suggest each and every element of claims 22 and 30, and therefore there is no support for a finding of obviousness thereover. As such, claims 22 and 30, and the claims dependent therefrom, are patentably distinct over the cited references.

Therefore, in light of at least the foregoing, Applicant respectfully believes that the present application is in condition for allowance. As a result, Applicant respectfully requests timely issuance of a Notice of Allowance for claims 22-54.

Applicant appreciates the Examiner's consideration of these Amendments and Remarks and cordially invites the Examiner to call the undersigned, should the Examiner consider any matters unresolved.

Respectfully submitted,

/Kevin R. Rosin/

[1]Kevin R. Rosin
Registration No. 55,584
Phone 262-376-5170 ext. 15
krr@zpspatents.com

Dated: September 26, 2006
Attorney Docket No.: ITW7510.083

P.O. ADDRESS:
Ziolkowski Patent Solutions Group, SC
14135 North Cedarburg Road
Mequon, WI 53097-1416
262-376-5170

[1] The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-2623. Should no proper payment be enclosed herewith, as by credit card authorization being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-2623. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extensions under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 50-2623. Please consider this a general authorization to charge any fee that is due in this case, if not otherwise timely paid, to Deposit Account No. 50-2623.